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CENTRAL FAX CENTERApplication No. 10/587,235  
Second Preliminary Amendment

SEP 28 2006

Docket No.: 65999-0012

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A Ssystem to convert thermal into motive energy with comprising at least one pressure vessel, ~~which has~~including at least one upper injection orifice for a ~~warm and/or cold~~ fluid that is warm or cold, and with a liquid piston pump within the at least one pressure vessel[[,]] which ~~that~~ is coupled with a working cycle, ~~characterized in that~~wherein the pressure vessel has a horizontal wall provided with a borehole, and further wherein above the wall[[,]] there is a gas or gas mixture and the liquid piston pump is below the wall, the liquid piston pump.

2 – 14 (Canceled)

15. (New) The system according to Claim 1, wherein the borehole expands conically in the direction of the section of the pressure vessel filled with gas.

16. (New) The system according to Claim 1, wherein a float valve with a borehole for limiting a fill level of the liquid piston pump is inserted into the wall.

17. (New) The system according to Claim 16, wherein the float valve comprises a basket screwed into the wall to receive a plastic sphere, wherein the basket has a cylindrical part of the borehole.

18. (New) The system according to Claim 17, wherein the basket carries a screen affixed via distance sleeves, which screen projects into the area of the pressure vessel filled with gas or a gas mixture.

19. (New) The system according to Claim 1, wherein the pressure vessel has on its lower end a connection piece to connect to a flow line of the working cycle.

20. (New) The system according to Claim 19, wherein the connection piece is coupled with a backflow line of the working cycle.

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21. (New) The system according to Claim 7, wherein the backflow line of the working cycle is connected with interposition of a controllable valve to a conduit leading to the injection orifice for the cold fluid or to a supply vessel for the fluid.

22. (New) The system according to Claim 20, wherein the flow line leads to a turbine, from which the backflow line exits.

23. (New) The system according to Claim 21, wherein the flow line is connected to the supply vessel via a conduit.

24. (New) The system according to Claim 23, wherein a conduit exits from the supply vessel, and the conduit branches off with the interposition of valves to a heating and cooling device for the fluid.

25. (New) The system according to Claim 24, wherein the heating device and the cooling device are respectively coupled with one of the injection orifices with the interposition of a controlled valve.

26. (New) The system according to Claim 1, wherein the fluid is water or an organic substance including pentane, toluene, or silicone oil.

27. (New) The system according to one of Claims 1 to 13, wherein a short-circuit pipeline with at least one controllable valve for pressure compensation between the pressure vessels is respectively provided between two of the pressure vessels after the performance of the work of the gas.